REMARKS

Claims 1, 2, 4-10, 14-17 are pending in this application, of which claims 1, 4, 5, 14, 16 and 17 have been amended. Claims 3 and 11-13 have been canceled. Reconsideration of the rejections in view of these amendments and the following remarks is respectfully requested.

Attached hereto is "Version with Markings to Show Changes Made," which is a marked-up version of the changes made to the specification and claims by the current amendment.

Drawing Objections

Drawings were objected because reference characters "14" and "22" have both been used to designate drive motor and because reference character "100" has been used to designate both solvent and ink on page 9, line 4.

The specification has been amended to clarify that reference character "22" designates "another"drive motor. The specification has also been amended to change the character solvent "100" at page 9, line 4, to solvent --110--.

Rejections under 35 USC §112, Second Paragraph

Claims 5, 10, 12 and 13 were rejected under 35 USC §112, second paragraph, as being indefinite because (a) in claim 5, "by a flow tester" is in parentheses, (b) in claims 12 and 13, it is not clear what is meant by derivatives, and (c) in claim 12, it is not clear what is meant by the phrase "in the whole." As to claim 10, the Office Action failed to specify the rejection.

In claim 5, "(by a flow tester)" has been amended to --measured by a flow tester-- to overcome the rejection. Claims 12 and 13 have been canceled making the rejection moot.

Thus, the rejection has been overcome or become moot.

Rejections under 35 USC §102(b)

Claims 1-2, 4, 6-14 and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by Tsutsumi et al (U.S. Patent No. 6,031,019); Claims 1-2, 4-5, 8-11, 14 and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by Belmont et al (U.S. Patent No. 5,630,868); Claims 1-4, 8-14 and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by Patel et al (U.S. Patent No. 5,977,210); Claims 1-2, 5-6, 9-14 and 16-18 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 767225; Claims 1 and 9-14 were rejected under 35 U.S.C. §102(b) as being anticipated by JP 379678; Claims 1-2, 6, 9-11 and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by JP 10120957; and Claims 1-2, 4 and 6-14 were rejected under 35 U.S.C. §102(b) as being anticipated by Jones et al (U.S. Patent No. 5,936,008).

Independent claims 1, 14, 16 and 17 have been amended to recite "a glass transition point less than or equal to 50 °C and a volume average particle diameter ranging from 0.01 through 2 μm obtained from a radical polymeric monomer selected from the group consisting of (a) 20 through 99 wt% of styrene and styrene derivative, and (b) 10 through 80 wt% of alkyl acrylate, alkyl metacrylate and derivatives thereof."

The above features contribute to "rapid drying," which realizes superior self-fixing due to self-film-shaping. None of the cited references teach or suggest a method to realize superior self-fixing due to self-film-shaping.

For at least this reason, claims 1, 14, 16 and 17 patentably distinguish over the cited references. Also, for at least the same reason, the other claims dependent from any of claims 1, 14, 16 and 17 patentably distinguish over the cited references.

It is submitted that nothing in the cited references, taken either alone or in combination, teaches or suggests all the features recited in each claim of the present application. Thus, all pending claims are in condition for allowance. Reconsideration of the rejections, withdrawal of the rejections and an early issue of a Notice of Allowance are earnestly solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN, HATTORI,
McLELAND & NAUGHTON, LLP

Sadao Kinashi
Attorney for Applicants
Reg. No. 48,075

Atty. Docket No. 991444
1725 K Street, N.W., Suite 1000
Washington, DC 20006
Tel: (202) 659-2930
Fax: (202) 887-0357
SGA/SK/fs
H:\HOME\fsakai\amendment\991444

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning at page 6, line 20, has been amended as follows:

--The carriage 18 is attached to an endless drive belt 20 that is driven by [the] another drive motor 22, whereby the carriage 18 is reciprocated (scanned) along the platen 12.--

The paragraph beginning at page 8, line 26, has been amended as follows:

--Since the copolymer 120 is prepared by a process such as an emulsion polymerization, a micro emulsion polymerization and a soap-free polymerization, its surface is covered with a surfactant. Accordingly, for example, an electrostatic repulsion, a steric hindrance or the like occurs among particles, so that the particles are not secondarily flocculated or precipitated even during long-term storage. As the main constituents of the ink 100 include the solvent [100] 110, it is possible to form an image in a similar treatment as ink used in a conventional inkjet head.--

IN THE CLAIMS

Claims 3 and 11-13 have been canceled.

Claims 1, 4, 5, 14, 16 and 17 have been amended as follows:

1. (Amended) Ink comprising:

a primary particle of a copolymer that has a glass transition point less than or equal to 50 °C and a volume average particle diameter ranging from 0.01 through 2 μm obtained from [at least one kind of] a radical polymeric monomer selected from the group consisting of:

(a) 20 through 99 wt% of styrene and styrene derivative; and

(b) 10 through 80 wt% of alkyl acrylate, alkyl methacrylate and derivatives thereof;

a colorant; and

a solvent that is liquid at room temperature.

4. (Amended) The ink according to claim 1, wherein said copolymer has a glass transition point ranging from -30 through [70] 50 °C.

5. (Amended) The ink according to claim 1, wherein said copolymer has a softening point [(by a flow tester)] measured by a flow tester ranging from 40 through 150°C.

14. (Amended) Ink comprising:

a copolymer particle that has a glass transition point less than or equal to 50 °C and a volume average particle diameter ranging from 0.01 through 2 μm obtained from [at least one kind of] a radical polymeric monomer selected from the group consisting of:

(a) 20 through 99 wt% of styrene and styrene derivative; and

(b) 10 through 80 wt% of alkyl acrylate, alkyl methacrylate and derivatives thereof;

a colorant; and

a solvent that is liquid at room temperature.

16. (Amended) An ink cartridge including a case and ink which is stored n said case and comprises:

a copolymer particle that has a glass transition point less than or equal to 50 °C and a volume average particle diameter ranging from 0.01 through 2 μm obtained from [at least one kind of] a radical polymeric monomer selected from the group consisting of:

(a) 20 through 99 wt% of styrene and styrene derivative; and

(b) 10 through 80 wt% of alkyl acrylate, alkyl methacrylate and derivatives thereof;

a colorant; and

a solvent that is liquid at room temperature.

17. (Amended) A recording device including a head and an ink cartridge supplying ink to said head, wherein said ink comprises:

a copolymer particle that has a glass transition point less than or equal to 50 °C and a volume average particle diameter ranging from 0.01 through 2 μm obtained from [at least one kind of] a radical polymeric monomer selected from the group consisting of:

(a) 20 through 99 wt% of styrene and styrene derivative; and

(b) 10 through 80 wt% of alkyl acrylate, alkyl methacrylate and derivatives thereof;

a colorant; and

a solvent that is liquid at room temperature.